

**REMARKS/ARGUMENTS**

Claims 114-169 and 208-213 are pending.

**1     Objections to the Specification**

The specification has been amended to include the omitted serial numbers referred to by the Examiner.

**2           Objections to the Claims**

The Markush groups of claims 128 and 156 have been amended to include the word “and” as requested by the Examiner.

**3           Issues Under 35 USC 112**

Claims 142, 208-210, 212 and 213 have been amended to overcome the issues raised by the Examiner. Claims 214-217 have been cancelled as duplicative of other pending claims. Claim 211 does not recite the limitation “the amphiphilically-balanced,” so it was not amended.

**4           Novel Under 35 USC 102 and Non-obvious Under 35 USC 103**

Claims 114-122, 126, 127, 129-150, 154, 157-169 and 208-217 were rejected as allegedly being anticipated by Allaudeen and, separately, by Radha Krishnan. Applicants respectfully traverse these rejections. The Examiner has the initial burden of presenting a prima facie case of unpatentability and only after that burden has been met does it shift to the applicant. Applicants respectfully submit that the Examiner has not made a prima facie case of unpatentability. The Examiner’s arguments are based on the unsupported assertions that “purification of HIM2 from HID2 or HIM1 results in a ‘monodispersed’ mixture” and that “HIM2 is hexyl insulin conjugate M2.” Applicants have reviewed the cited references and have found no support for these assertions.

In the pharmaceutical industry, companies often seek to balance the need for peer reviewed scientific publications with the need to prohibit disclosures that would result in a loss of patent rights. It has long been the practice of many companies to achieve this balance by permitting scientists to publish data about pharmaceutical compounds without revealing the structure of the compound. Since a publication must be

enabling in order to negatively impact patentability of a compound, this practice permits companies to publish without perishing – i.e., to publish without losing patent rights.

This position is supported by numerous court cases.<sup>1</sup> For example, the Court of Appeals for the Federal Circuit (CAFC) has stated: “To anticipate a claim, a reference must *disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter.*”<sup>2</sup> Further, the CAFC has also emphasized that “An anticipatory reference must be enabling, *so as to place one of ordinary skill in possession of the claimed invention.*”<sup>3</sup> *A coded reference to a drug without a description of the structure of that drug does not enable one of skill in the art to make the drug.*

Furthermore “the identical invention must be shown in as complete detail as is contained in the patent claim.”<sup>4</sup> “There must be no difference between the claimed invention and the referenced disclosure, as viewed by a person of ordinary skill in the field of invention.”<sup>5</sup> *A coded reference to a drug without a description of the structure of that drug does not disclose an invention identical to the invention recited in a claim that shows a specific drug structure.*

In the present case, Applicants have reviewed the cited Allaudeen and Radha Krishnan publications and did not find a structure identical to that of Formula III, which is an element of each of the rejected claims. Thus they do not “disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter,”<sup>6</sup> nor do they “place one of ordinary skill in possession of the claimed invention”<sup>7</sup>; nor do they show “the identical invention ... in as complete detail as is contained in the patent claim.”<sup>8</sup> Consequently, they cannot be said to anticipate the claims of the applicants’ invention.

Further, it appears that the Examiner has misunderstood the term “monodispersed” as it is used in the present invention. Applicants’ use of the term “monodispersed” relates to a reduction in dispersity of the

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<sup>1</sup> *In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2D (BNA) 1655, 1657 (Fed. Cir. 1990); see *Seymour v. Osborne*, 78 U.S. 516, 555, 20 L. Ed. 33 (1870) (“The knowledge supposed to be derived from the publication must be sufficient to enable those skilled in the art or science to understand the nature and operation of the invention.”). To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *Chester v. Miller*, 906 F.2d 1574, 1576 n.2, 15 U.S.P.Q.2D (BNA) 1333, 1336 n.2 (Fed. Cir. 1990); *In re Donohue*, 766 F.2d 531, 533, 226 U.S.P.Q. (BNA) 619, 621 (Fed. Cir. 1985).

<sup>2</sup> *PPG Industries, Inc. v. Guardian Industries, Corp.*, 37 U.S.P.Q.2d 1618 (Fed. Cir. 1996) (emphasis added).

<sup>3</sup> *Ciba-Geigy Corp. v. Alza Corp.*, 37 U.S.P.Q.2d 1337, FN3 (Fed. Cir. 1995) (cites omitted; emphasis added).

<sup>4</sup> *Richardson v. Suzuki Motor Co., LTD.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

<sup>5</sup> *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991).

<sup>6</sup> *PPG Industries, Inc. v. Guardian Industries, Corp.*, 37 U.S.P.Q.2d 1618 (Fed. Cir. 1996).

<sup>7</sup> *Ciba-Geigy Corp. v. Alza Corp.*, 37 U.S.P.Q.2d 1337, FN3 (Fed. Cir. 1995) (cites omitted).

<sup>8</sup> *Richardson v. Suzuki Motor Co., LTD.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

molecular weight of the oligomer, not to the purification of conjugates having specific sites of conjugation (though monodispersed conjugates may also have identical structures).

Claims 114-127, 129-155, 156-169 and 208-217 were rejected as allegedly being unpatentable over Allaudeen or Radha Krishnan. Applicants respectfully traverse this rejection. The arguments made above are incorporated herein. For the reasons stated above, neither Allaudeen nor Radha Krishnan, alone or in combination, teaches or suggests the disclosed invention.


Claims 114-169 and 208-217 were rejected as allegedly being unpatentable over Allaudeen or Radha Krishnan in view of Vajo. Applicants respectfully traverse this rejection. The arguments made above are incorporated herein. The deficiencies of Radha Krishnan and Allaudeen discussed above are not remedied by combining them with Vajo et al. Thus, neither Allaudeen nor Radha Krishnan in view of Vajo teaches or suggests the disclosed invention.

In conclusion, the applicants' claims are novel and nonobvious in view of the cited references, and the examiner is respectfully requested to withdraw the stated 102 and 103 rejections.

## 5 Conclusions

The pending claims are now in condition for allowance. In the event that any issues remain incident to formal allowance of the application, the Examiner is requested to contact the undersigned attorney at (919) 286-8104.

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